DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-010478 Address: 333 Burma Road **Date Inspected:** 30-Nov-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Liu Fawen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes No N/A **Delayed / Cancelled: Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG) Components

Summary of Items Observed:

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 2

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 018 located on Longitudinal Diaphragm LD3022 – 001. Welder is identified as 045276. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2231 - B - U2 - F - 1.

Weld joint # 021 located on Longitudinal Diaphragm LD3022 – 001. Welder is identified as 045276. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2231 - B - U2 - F - 1.

Submerged Arc Welding (SAW):

Weld joint # 018 located on Longitudinal Diaphragm LD3022 – 001. Welder is identified as 045270. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2221 - B - L2c - S - 2.

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Weld joint # 021 located on Longitudinal Diaphragm LD3022 – 001. Welder is identified as 045270. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2221 - B - L2c - S - 2.

Green Tag

Issued a green tag after the completion of NDT requirements for the following OBG component:

1. FB3013 – 003 – Green Tag # 11206

BAY 5

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 014 located on Traveler Rail 10TR2 – 011. Welder is identified as 066359. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U5 - F.

Weld joint # 006 located on Traveler Rail 11TR3 – 017. Welder is identified as 215078. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 014 located on Traveler Rail 10TR1 – 008. Welder is identified as 204342. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 013 located on Traveler Rail 11TR3 – 017. Welder is identified as 215078. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

This QA Inspector observed the following work not in compliance:

During random in process visual inspection of lift 12 FL1 OBG floor beam (FB) components this Quality Assurance Inspector (QA) observed five (5) stiffener cope-hole radii on four (4) floor beams that did not appear to comply with the dimensions specified on the approved shop drawings. The radii as measured by this QA appeared to be approximately 35 mm to 40 mm. According to the approved shop drawings the cope-hole radii should be 25mm.

The affected Floor Beams are identified as follows;

FB3089-001 – Stiffener X3242A – Located at Bay # 2

FB3046-001 – Stiffener X3116A – Located outside yard opposite to Bay # 14

FB3023-001 – Stiffener X3120B – Located outside yard opposite to Bay # 14

FB3098-001 – Stiffeners X3260A & X3260B – Located outside yard opposite to Bay # 13

Applicable reference:

Approved Drawings – FB3089; FB3046; FB3023 and FB3098

WELDING INSPECTION REPORT

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This QA notified ZPMC QC identified as Mr. Yang Qing Feng and ABF inspector identified as Mr. Luo Gui Lin of the above issue and that an incident report will be generated.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Kumar,Sandeep | Quality Assurance Inspector |
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| Reviewed By: | Hall,Steven | QA Reviewer |